PARTNERING TO COMMERCIALIZE NEW DISCOVERIES

ONTARIO'S
UNIVERSITIES

Ontario's research and innovation sector has a leading role to play in the province's recovery and future prosperity as communities begin to rebuild.

As one of the sector's key players, Ontario's universities are helping mobilize the province's manufacturing and innovation with made-in-Ontario solutions, including developing treatments, testing methods, outcomes modeling and much-needed PPE.

Our institutions will continue to conduct ground-breaking research, support small businesses, partner with industry to move research and technology into the private sector through Technology Transfer Offices and develop entrepreneurial talent through curriculums and work-integrated learning opportunities. Below are just a few examples of how universities are working with government and industry to drive a robust innovation ecosystem.
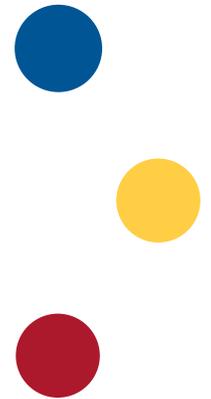
Supporting SMEs and community organizations

● Local community organizations and industry can access state-of-the-art research facilities to test ideas through centres and hubs at **Algoma University**. Natural resources company R&B Cormier Enterprises Inc. recently used the university's Convergence Centre to conduct high-end remote-sensing work for a forest-measuring project.

● An innovative virtual incubator is helping women whose careers have suffered during the pandemic turn their skills to community-minded entrepreneurship. Co-created by **McMaster University**, the online community resource offers peer-reviewed research and training on creativity, innovation and entrepreneurial skills.

● Providing artists and designers with critical seed funding to help them launch their own creative enterprise is the focus of **OCAD University's** pitch competition. This initiative is being led by the university's RBC Centre for Emerging Artists & Designers, in partnership with Ownr, a company that enables Canadian entrepreneurs to start, manage and grow their business.

● To foster a vibrant culture of entrepreneurship, **Trent University's** Entrepreneurship & Social Innovation Centre aims to help students and community members transition into the workforce through entrepreneurship. The centre offers co-curricular learning opportunities, mentorship, funding opportunities and other resources.

Transferring technology from campus to marketplace

● Collaborations between academia and industry help advance research and development (R&D). Through fee-for-service contracts, consulting services, R&D partnerships and more, **Carleton University's** Front Door initiative encourages faster commercialization by helping companies make smarter decisions and supporting researchers as they take ideas to market.

● **Ontario Tech University** is leading the engineering and building of the Automotive Parts Manufacturers Association's "Arrow", an all-Canadian zero-emission concept vehicle to be designed, engineered and built by hundreds of companies from the country's world-class automotive supply sector.

● Moving an innovation from lab to product can be complicated. The **University of Waterloo's** commercialization service, WatCo, aims to make it smoother and more efficient by offering supports, such as sorting legal issues relevant to licensees and investors, assessing opportunities and barriers to commercial entry and helping protect intellectual property rights.

● Developing spin-off companies that add jobs in a region can build financial vitality. **Western University's** WORLDiscoveries, through commercialization activities and innovation programming like the Western Medical Innovation Fellowship, are nurturing entrepreneurs who create companies like Frontline Medical – a medical device company that has built a novel device to control bleeding in trauma patients.

To maximize the commercial, economic and social impacts of research, **York University's** Innovation York helps students, researchers and entrepreneurs build, launch and scale their discoveries and start-up ventures. Staff helps draft agreements, create industry connections and provide advice about the best approaches to commercialization. Innovation York's start-ups have raised $11 million and generated $8.5+ million in revenue; and Innovation York has supported 165+ start-up ventures, which created 167+ jobs.

Developing an entrepreneurial workforce

Creating a thriving community of entrepreneurial thinkers requires an innovative and collaborative space. **Lakehead University's** business incubator, Ingenuity, is fostering mentor networks, prototype development and community partnerships. Ingenuity's program also taps into the local community to help students take their business from idea to launch.

Building a culture of innovation starts with opportunity. **Laurentian University's** Fielding Innovation Space provides students a social hub and prototyping lab to experiment, develop and fabricate their ideas, with the support to take it a step further. By partnering with local start-ups like iRegained Inc., they're also enabling the developing talent of their local start-up ecosystem.

Local community organizations and businesses can access the expertise of students and faculty from **Nipissing University's** School of Business through the Sparrow Family Experiential Learning Centre. The Centre offers a space to facilitate connection, host workshops, share ideas and engage in dialogue with community partners to help address their business needs.

Helping students, researchers and alumni turn their ideas into scalable businesses is creating opportunities for skills development and personal growth. In partnership with local industry, the **University of Ottawa's** intensive, four-month Startup Garage offers space, mentorship, formal training, funding and support for entrepreneurs to launch their companies.

Partnering with industry

A naturally occurring molecule found in fruit and vegetables might mitigate – or even prevent – COVID-19 infections. To further explore the properties of quercetin, **Brock University** researchers are partnering with Biolyse Pharma Corporation to develop a treatment and manufacture a made-in-Ontario molecule that can prevent infections here and around the world.

To help address a shortage of PPE for frontline workers, a **University of Guelph** researcher is adapting his technology for decontaminating fresh produce in order to sanitize N95 masks for reuse. Through a partnership with Niagara-based company Clean Works, they are able to sanitize up to 800 masks in an hour.

Adapting a detection method called Enzyme Linked Mass Spectrometric Assay (ELiMSA™) to accurately diagnose and assess present and past COVID-19 infections is raising hopes in a challenging time. **Ryerson University's** Analytical Biochemistry Lab is partnering with YYZ Pharmatech Inc., National Taiwan University and St. Michael's Hospital to commercialize the ultrasensitive method, which helps to prevent false negatives and positives, leading to fewer COVID-19 infections.

Scaling start-ups and companies

Helping governments build a roadmap for economic recovery efforts is critical. Limestone Analytics, founded by **Queen's University** economic researchers and supported by Queen's Partnerships and Innovation, has developed a COVID-19 policy analysis tool to help governments plan their response to the pandemic. The company worked closely with the Eastern Ontario Leadership Council to understand the needs of the region.

Bringing new life-saving therapies to the marketplace faster is the goal of Atomwise, a company founded by **University of Toronto** students. Developed through Techno, the university's Impact Centre's training program for transforming scientific insights into start-ups, Atomwise applies the latest advances in neural networks to make more effective drugs.

Companies creating innovative products based on data and technology will lay the foundation for Canada's economic recovery. The Lazaridis Institute for the Management of Technology Enterprises at **Wilfrid Laurier University's** Lazaridis School of Business and Economics helps high-potential, fast-growing Canadian tech companies scale and compete internationally by providing the expert support they need to achieve global success.

A technology that prolongs the life of equipment and delays the onset of rust has been commercialized and is now being used in many industries, due to a partnership between the **University of Windsor** and Enwin. The collaboration resulted in ONtech Rapid Coatings Inc., an anti-rust company in Windsor, that develops cutting edge corrosion control and coating solutions.